

What is claimed is:

1. A method of providing an interactive voice response system, comprising:
recognizing a spoken question using a grammar that is automatically updated from sources of information external to the interactive voice response system.
2. A method as recited in claim 1, further comprising automatically obtaining at least one set of topics for questions spoken by a user from the sources of information.
3. A method as recited in claim 2, wherein said obtaining uses at least one communication connection between the interactive voice response system and at least one news report provider to obtain news reports.
4. A method as recited in claim 3, wherein said obtaining includes repeatedly accessing the at least one news report provider via a computer network.
5. A method as recited in claim 4, further comprising:
extracting keywords from the news reports; and
updating the grammar using the keywords.
6. A method as recited in claim 5, further comprising:
storing at least part of the news reports; and
outputting at least one of the news reports when the spoken question contains at least one of the keywords extracted therefrom.
7. A method as recited in claim 6, further comprising identifying the keywords from information included in the news reports.

9. A method as recited in claim 6,

wherein said outputting plays back the at least one audio file.

11. A method as recited in claim 6,

wherein said outputting includes text-to-speech conversion of the at least one text file.

13. A method as recited in claim 12, wherein said determining is performed

receiving selection of the at least one news report providers by the user.

15. A method as recited in claim 1, further comprising automatically

16. A method as recited in claim 15, further comprising:

comparing message words in the at least one message with information in a global information database to determine for each message word whether there are any corresponding questions that can be answered by information in the global information database; and

updating the grammar with the corresponding questions and related message words.

17. A method as recited in claim 15, further comprising:

comparing message words in the at least one message with information in a synonym database to determine synonyms for the message words; and

adding the synonyms to the grammar.

18. A method as recited in claim 15, further comprising automatically adding words to the grammar based on a source of the message.

19. A method as recited in claim 18, wherein the message is a voicemail message and the source of the message is determined based on automatic number identification provided when the voicemail message was received.

20. A method as recited in claim 18,

wherein the message is an e-mail message, and

wherein said method further comprises adding information to the grammar from an address book entry for the sender of the e-mail.

21. A method as recited in claim 1, further comprising automatically updating the grammar based on calendar information stored for a user asking the spoken question.

22. A method as recited in claim 21, wherein said updating includes adding to the grammar to enable said recognizing for questions about locations found in the calendar information.

23. A computer readable medium storing at least one program for controlling an interactive voice response system to perform a method comprising:

recognizing a spoken question using a grammar that is automatically updated from sources of information external to the interactive voice response system.

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30. A computer readable medium as recited in claim 29, wherein said determining is performed by

outputting an audio signal containing a list of available news report providers; and

receiving selection of the at least one news report providers by the user.

32. A computer readable medium as recited in claim 31, wherein said method further comprises:

updating the grammar with the corresponding questions and related message words.

comparing message words in the at least one message with information in a synonym database to determine synonyms for the message words; and adding the synonyms to the grammar.

35. A computer readable medium as recited in claim 34, wherein the message is a voicemail message and the source of the message is determined based on automatic number identification provided when the voicemail message was received.

37. A computer readable medium as recited in claim 31, further comprising automatically updating the grammar based on calendar information stored for a user asking the spoken question.

[illegible]

44. An interactive voice response system as recited in claim 43,
wherein said update means further includes
means for comparing message words in the at least one message
with information in a global information database to determine for each message
word whether there are any corresponding questions that can be answered by
information in the global information database; and

at least one telephone interface unit coupled to said at least one processor unit.

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